

# POLYNIL® P50 LHS

Polyamide 66

Nilit Plastics

# PROSPECTOR®

www.ulprospector.com

## Technical Data

### Product Description

POLYNIL® P50 LHS is an unreinforced Polyamide 66 (Nylon 66) for injection molding, UL listed V2. This general purpose 2.7 viscosity Polyamide 66 resin is lubricated and heat stabilized.

### General

Material Status	• Commercial: Active
Literature <sup>1</sup>	• <a href="#">Technical Datasheet (English)</a> • <a href="#">Technical Datasheet (German)</a> • <a href="#">Technical Datasheet (Italian)</a>
UL Yellow Card <sup>2</sup>	• <a href="#">E157173-100760380</a>
Search for UL Yellow Card	• <a href="#">Nilit Plastics</a> • <a href="#">POLYNIL®</a>
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Additive	• Heat Stabilizer • Lubricant
Features	• Heat Stabilized • Lubricated
Processing Method	• Injection Molding

Physical	Nominal Value Unit	Test Method
Density (23°C)	1.14 g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage		ISO 294-4
Across Flow : 23°C	1.6 %	
Flow : 23°C	1.4 %	
Water Absorption		ISO 62
23°C, 24 hr	1.5 %	
Saturation, 23°C	8.5 %	

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus (23°C)	3100 MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	83.0 MPa	ISO 527-2
Tensile Strain		ISO 527-2
Yield, 23°C	6.0 %	
Break, 23°C	50 %	
Flexural Modulus (23°C)	2900 MPa	ISO 178
Flexural Stress (23°C)	120 MPa	ISO 178

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179/1eA
-30°C	4.5 kJ/m <sup>2</sup>	
23°C	5.5 kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength		ISO 179/1eU
-30°C	No Break	
23°C	No Break	
Notched Izod Impact Strength		ISO 180/A
-30°C	4.5 kJ/m <sup>2</sup>	
23°C	5.5 kJ/m <sup>2</sup>	

Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		
0.45 MPa, Unannealed	225 °C	ISO 75-2/B
1.8 MPa, Unannealed	72.0 °C	ISO 75-2/A
Continuous Use Temperature <sup>4</sup>	130 °C	IEC 60216
Vicat Softening Temperature	240 °C	ISO 306/B



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Thermal	Nominal Value Unit	Test Method
Ball Pressure Test		IEC 60695-10-2
125°C	Pass	
165°C	Pass	
Melting Temperature	258 °C	
Electrical	Nominal Value Unit	Test Method
Surface Resistivity <sup>5</sup>	1.0E+12 ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+15 ohms·cm	IEC 60093
Electric Strength (2.00 mm)	18 kV/mm	IEC 60243-1
Comparative Tracking Index		IEC 60112
3.20 mm, Solution A	600 V	
Flammability	Nominal Value Unit	Test Method
Flame Rating		UL 94
0.800 mm	V-2	
3.20 mm	V-2	
Glow Wire Flammability Index		IEC 60695-2-12
0.800 mm	750 °C	
3.20 mm	850 °C	
Glow Wire Ignition Temperature		IEC 60695-2-13
0.800 mm	775 °C	
3.20 mm	750 °C	
Oxygen Index	28 %	ISO 4589-2
Flammability <sup>6</sup>	SE	FMVSS 302

**Notes**

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

<sup>3</sup> Typical properties: these are not to be construed as specifications.

<sup>4</sup> 20000 hr

<sup>5</sup> 23°C

<sup>6</sup> 355x100x1mm



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## Where to Buy

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### Supplier

**Nilit Plastics**

**Web:** <http://www.nilit.com/plastics/contact.asp>

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### Distributor

Please contact the supplier to find a distributor for POLYNIL® P50 LHS

